Introduction

With new products being introduced to the pharmacy shelves every month, this article aims to provide basic data on some of the latest products launched. This may assist the pharmacist in comparing the new medicine with products available for a particular condition.

NOTE: Prices quoted are single exit prices inclusive of VAT. They do not include any professional fees that may be applicable.

Ophthalmic preparations

• **Ranibizumab (Lucentis®)**
  Age-related macular degeneration (AMD) is a disease that destroys central vision. Central vision is required to see objects clearly. Studies show that AMD is most common in people over the age of 60 years.

  Lucentis® is indicated for neovascular age-related macular degeneration. Lucentis® should be administered by an experienced ophthalmologist. The recommended dose is 0.5 mg which is administered by intravitreal injection once a month for three consecutive months. During the maintenance phase, visual acuity must be monitored monthly. If a loss of greater than 5 letters in visual acuity is experienced, Lucentis® can be re-administered. The intervals between doses should not be less than one month.

  Lucentis® is not recommended if the patient has an acute or suspected ocular or peri-ocular infection or intraocular inflammation. The product should not be used during pregnancy.

  Common adverse effects include: intraocular inflammation, increased intraocular pressure, blurred vision, eye pain or irritation, dry eyes and ocular discomfort.

  Lucentis® is manufactured by Novartis.

  Cost: Price on application.

Azelastine HCL (Optilast®)

Allergic conjunctivitis is inflammation of the tissues lining the eyelids due to a reaction to an allergen. Optilast® is indicated for the treatment and prevention of seasonal allergic conjunctivitis in adults and children over the age of 4 years, and the symptomatic treatment of perennial allergic conjunctivitis in adults and children over the age of 12 years.

Optilast® is contra-indicated in children under the age of 4 years.

Safety in pregnancy and lactation has not been established.

Side-effects include mild irritation and burning, eye pain, visual disturbances, headache and nausea.

Optilast® is manufactured by Thebe.

Cost: 0.5 mg/ml – R33.06/10 ml

Nasal preparations

• **Fluticasone furoate (Avamys®)**
  Many patients suffering from allergic rhinitis experience both nasal and ocular symptoms. Avamys® Nasal Spray contains fluticasone furoate, an enhanced potency corticosteroid. It is indicated in the treatment of both seasonal and perennial allergic rhinitis (runny/blacked nose, nasal itching) as well as the treatment of associated ocular symptoms of seasonal allergic rhinitis (itching, watering and redness of eyes) in adults and children over the age of 12 years.

  Safety in pregnancy and lactation has not been established.

  Common adverse effects include epistaxis and headache.

Avamys® is manufactured by GSK.

Cost: R196.62/120 metered sprays
**Cardiovascular Products**

- **Ivabradine (Coralan®)**
  Ivabradine is a heart rate lowering agent. Myocardial oxygen demand is increased and tissue perfusion is limited during periods of increased heart rate. A reduction in heart rate may prevent myocardial ischaemia and angina pectoris.

  Ivabradine is indicated for the symptomatic treatment of chronic stable angina pectoris in patients with normal sinus rhythm. It may be used in patients in whom beta-blockers are contraindicated, or may be used in combination with beta-blockers, where indicated.

  Ivabradine is contraindicated in patients with cardiac dysrhythmias, unstable angina pectoris, acute coronary syndrome, class III to IV heart failure, 3rd degree AV block, cardiogenic shock, patients with a pacemaker, a resting heart rate below 60 beats per minute (bpm) or severe hypotension. Use of Coralan® is contraindicated in pregnancy and lactation.

  Major adverse effects include enhanced brightness in the visual field, bradycardia, extrasystoles, headache and dizziness.

  Coralan® is manufactured by Servier.

  Cost: 5 mg tablets – R406.98/30 tablets
  7.7 mg tablets – R406.98/30 tablets

- **Amlodipine/valsartan fixed-dose combination (Exforge®)**
  Exforge® is a combination of two ingredients: amlodipine, a calcium channel blocker indicated for use in angina pectoris and mild to moderate hypertension, and valsartan, an angiotensin II receptor antagonist used in the treatment of mild to moderate hypertension. Exforge® is used in patients with mild to moderate hypertension who are stabilised on the same dosages of the individual components.

  Exforge® is contra-indicated in patients with moderate to severe renal impairment, aortic or mitral stenosis, obstructive cardiomyopathy, or those who have experienced angioedema with previous treatment with either of the components. Safety in pregnancy and lactation, as well as use in patients under 18 years, has not been established.

  Side-effects include hypersensitivity, visual disturbances, anxiety, vertigo, tinnitus, palpitations, fainting, orthostatic hypotension, cough and gastric disturbances.

  Exforge® is manufactured by Novartis.

  Cost: Amlodipine 5 mg/valsartan 160 mg – R175.85/28 tablets
  Amlodipine 10 mg/valsartan 160 mg – R200.17/28 tablets

- **Lercanidipine/enalapril maleate fixed-dose combination (Zaneril®)**
  Zaneril® is a combination of the ACE inhibitor, enalapril maleate and the calcium channel blocker, lercanidipine. The combination is indicated for the treatment of hypertension in patients stabilised on the same dosages of the individual components.

  Zaneril® is contra-indicated in patients with aortic stenosis, untreated congestive cardiac failure, unstable angina, severe renal and/or liver failure, and during pregnancy and lactation.

  Side-effects include hypersensitivity, angioedema, central nervous system (CNS) effects, vertigo, palpitations, tachycardia, cough, dry throat and gastric disturbances.

  Zaneril® is manufactured by Pharmaplan.

  Cost: Lercanidipine 10 mg/enalapril maleate 10 mg – R148.20/28 tablets
  Lercanidipine 10 mg/enalapril maleate 20 mg – R210.90/28 tablets

**Biologicals**

- **Imiglucerase (Cerezyme®)**
  Gaucher’s disease is an inherited metabolic disorder in which a fatty substance called glucocerebrosidase accumulates in the spleen, liver, lungs, bone marrow and sometimes in the brain. There are three types of Gaucher’s disease: Type 1 is the most common. Patients in this category bruise easily and often experience fatigue due to anaemia. They may also have an enlarged liver and spleen, skeletal disorders and lung or kidney impairment. Symptoms may appear at any age. Type 2 patients display liver and spleen enlargement by the age of 3 months. Brain damage is extensive and progressive and patients usually die by 2 years of age. Type 3 patients experience liver and spleen enlargement, and some degree of brain involvement made apparent by seizures. All Gaucher’s patients show a deficiency of an enzyme called glucocerebrosidase that is involved in the breakdown and recycling of glucocerebrosidase.

  Cerezyme® is indicated for in type 1 Gaucher’s disease. It is administered by intravenous infusion.

  Safety in pregnancy has not been established. The safety and efficacy of Cerezyme® has not been established in patients under the age of 2 years.

  Side-effects include local reactions, hypersensitivity, fatigue, headache, dizziness, tachycardia and gastrointestinal disturbances.

  Cerezyme® is manufactured by Genzyme.

  Cost: R7674.48/vial
• Diphtheria, pertussis, tetanus, polio vaccine (Adacel® Quadra)

Due to the resurgence in the incidence of pertussis in several countries, and increases in cases occurring in adolescents and adults, a need has been identified for a pertussis booster to be added to the low-dose diphtheria, tetanus and poliomyelitis booster available for persons over the age of 6 years.

Adacel® Quadra is a component pertussis vaccine, with diphtheria and tetanus toxoids adsorbed, and inactivated poliomyelitis vaccine. It is indicated as a booster in persons over the age of 6 years.

Adacel® Quadra should not be given to patients with progressive or unstable neurological disorders, or with uncontrolled epilepsy until the condition has been stabilised. Vaccination should be deferred during a febrile illness. Adacel® Quadra is not recommended during pregnancy and lactation.

Side-effects include local reactions, headache, weakness, chills and fever.

Adacel® Quadra is manufactured by Sanofi-Pasteur.

Cost: R211.00/single dose pre-filled syringe

• Atovaquone/proguanil (Malanil® Paediatric tablets)

Malaria in children can have devastating consequences and chemoprophylaxis when travelling to a malaria endemic region is important. Malanil® Paediatric extends malaria protection with atovaquone/proguanil to children. This product is indicated for the prophylaxis of Plasmodium falciparum malaria.

The safety of the combination in children weighing less than 11 kg has not been established. The product is contraindicated in patients with severe renal impairment.

Side-effects include abdominal pain, nausea, vomiting, diarrhoea, and headache.

Malanil® Paediatric is manufactured by GlaxoSmithKline.

Cost: R138.85/12 paediatric tablets

Central nervous system

• Rasagiline (Azilect®)

Parkinson’s disease is a disorder characterised by slowness and poverty of movement, muscular rigidity, resting tremor and postural instability.

Rasagiline is indicated for monotherapy of Parkinson’s disease or in combination with levodopa in patients with end of dose fluctuations.

Azilect® is contraindicated in moderate to severe hepatic insufficiency, and in patients on concomitant MAOI therapy or on pethidine. Side-effects include headache, flu syndrome, malaise, neck pain, fever, angina pectoris, arthralgia, arthritis and depression.

Azilect® is manufactured by Lundbeck.

Cost: R1191.15/28 tablets

Cytostatics

• Dasatinib (Sprycel®)

Sprycel® is a cancer medication that slows the growth and spread of cancer cells. It is indicated for the treatment of chronic myeloid or acute lymphoblastic leukaemia in adults who are intolerant or resistant to other therapies including imatinib.

Sprycel® is not indicated in patients who have not previously received treatment with imatinib. Sprycel® is contraindicated in pregnancy and lactation. Sexually active males should use a condom to avoid pregnancy in their partner, while taking this product.

Side-effects include bleeding, nosebleeds, pallor, weakness, bruising, fever, chills and fluid retention.

Sprycel® is manufactured by Bristol-Myers Squibb.

Cost: 20 mg R20 178.34/60 tablets
50 mg R40 356.68/60 tablets
70 mg R40 536.68/60 tablets

Kidney disease

• Sevelamer hydrochloride (Renagel®)

Patients with chronic kidney disease and decreased renal function are unable to maintain the required rate of excretion of inorganic phosphate, which leads to hyperphosphataemia. Sevelamer is an oral phosphate binder that binds bile acids and dietary phosphorus, thus reducing serum phosphate concentration.

Renagel® is indicated for serum phosphorus control in adults with chronic kidney disease on haemodialysis.

Sevelamer is contraindicated in hypophosphataemia and in bowel obstruction. Safety in pregnancy, lactation and in patients under 18 years has not been established.

Common side-effects include: gastrointestinal effects such as nausea, vomiting, abdominal pain, constipation and diarrhoea, headache, altered blood pressure, pain and rash.

Renagel® is manufactured by Genzyme.

Cost: R2135.22/180 tablets
• Methoxy polyethylene glycol-epoetin beta (Mircera®)

Patients with chronic kidney disease are unable to secrete erythropoietin, a protein that is produced by the kidneys, and which stimulates the production of red blood cells in the bone marrow. Renal anaemia is a common complication of kidney disease, and is responsible for symptoms such as weakness and fatigue. Anaemia is also involved in the development of cardiovascular disease in patients with kidney disease.

Mircera® is a continuous erythropoietin receptor activator indicated for anaemia associated with kidney disease.

Mircera® is contraindicated in patients with uncontrolled hypertension. Safety in pregnancy, lactation and in patients under the age of 18 years has not been established.

Common side-effects include hypertension, headache, rash and hot flushes.

Mircera® is manufactured by Roche.

Cost: Mircera® is available as a single pre-filled syringe.
- 50 ug/0.3 ml R1899.81
- 75 ug/0.3 ml R2849.72
- 100 ug/0.3 ml R3799.62
- 150 ug/0.3 ml R3799.62
- 200 ug/0.3 ml R5066.16
- 250 ug/0.3 ml R6332.70

Dermatological

• Tacrolimus (Protopic®)

Atopic eczema is a chronic inflammatory skin condition. Pruritus is the main symptom in atopic dermatitis and may lead to scratching and scarring.

Tacrolimus is a macrolide antibiotic and a calcineurin inhibitor that is an effective topical immunomodulator. Protopic® is indicated for the short-term and intermittent long-term treatment of moderate to severe atopic dermatitis in adults and children over the age of 2 years.

Tacrolimus should not be used in patients allergic to macrolides or in patients with immunodeficiencies or on immunosuppressant medication. Protopic® should not be used during pregnancy and lactation. Safety has not been demonstrated beyond 12 months of treatment.

Side-effects include a transient burning and itching at the application site.

Protopic® is manufactured by Astellas Pharma.

Cost: 0.03% ointment 30 g (60 g): R194.00 (R388.00)
- 0.1% ointment 30 g (60 g): R215.00 (R430.00)

Oral contraceptives

• Ethinylestradiol/drospirenone (Yaz®)

Yaz® is a new low dose contraceptive with three approved indications: oral contraception, treatment of moderate acne vulgaris, and the treatment of symptoms of premenstrual dysphoric disorder (PMDD). The 28-day pack contains 24 active and 4 inactive tablets.

Drospirenone has antiandrogenic and antimineralocorticoid effects, which provide benefits for patients with moderate acne or with PMDD.

Contraindications are similar to those for other combined oral contraceptives, and include pregnancy, breast cancer, severe migraine and undiagnosed abnormal vaginal bleeding.

Side-effects include nausea, vomiting, bloating, changes in appetite or weight and breast tenderness.

Yaz® is manufactured by Bayer Schering Pharma.

Cost: R113.83/28 tablets

Endocrine system

• Cetrorelix (Cetrotide®)

Cetrotide® is indicated for the prevention of premature ovulation in controlled ovarian stimulation during assisted reproduction cycles.

This medication is for use by an experienced physician who is monitoring the ovarian cycle for in-vitro fertilisation (IVF) or a similar procedure. The patient should be kept under medical supervision for 30 minutes following the administration of the first dose.

Cetrotide® is contraindicated in pregnancy and lactation, in postmenopausal women, and in patients with moderate to severe renal or hepatic impairment.

Side-effects include anaphylaxis, hypersensitivity reactions, local injection site reactions, ovarian hyperstimulation syndrome and headache.

Cetrotide® is manufactured by Merck Serono.

Cost: 0.25 mg R285.00/ vial
- 3 mg R1 140/vial

References:
1. Mims (8) 2009
2. www.nei.nih.gov/health/maculardegen/armd
3. Mims (2) 2009
4. Mims (9) 2009
5. Mims (3) 2009
10. Merck Manual
11. http://www.drugs.com/sprycel